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**CLAIMS:**

What is claimed is:

- 5 1. A method of reducing data corruption due to recycled  
Internet Protocol (IP) identification numbers  
comprising the steps of:  
  
determining whether packets are to be divided into  
10 fragments;  
  
determining, if packets are to be divided into  
fragments, whether IP identification numbers are being  
recycled; and  
15 setting a size of a first fragment of a packet to a  
maximum transmission unit (MTU), if the IP  
identification numbers are recycling and decrementing  
the size of the first fragment of a packet each time  
20 the IP identification numbers recycle.
2. The method of Claim 1 wherein the size of the first  
fragment of a packet is decremented until it is equal  
to a predefined minimum transmission unit.
- 25 3. The method of Claim 2 wherein each time the size of the  
first fragment of a packet is to be decremented, it is  
decremented by one octet.
- 30 4. The method of Claim 3 wherein after being equal to the  
minimum transmission unit, the size of the first

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fragment is set to MTU the next time the IP identification numbers recycle.

5. The method of Claim 4 wherein when the first fragment of a packet is decremented, the fragment offset of all other fragments of the packet is modified.
6. The method of Claim 5 wherein if the IP identification number of all fragments is the same and the fragment offset of a fragment is not consistent with each other, the packet is discarded.
7. The method of Claim 6 wherein if the IP identification number of all fragments is the same and the fragment offset of a fragment is consistent with each other, the fragments are used to re-assemble the packet.
8. The method of Claim 7 wherein the packet is discarded or re-assembled by a receiving host.
9. A computer program product on a computer readable medium for reducing data corruption due to recycled Internet Protocol (IP) identification numbers comprising:  
  
code means for determining whether packets are to be divided into fragments;  
  
code means for determining, if packets are to be divided into fragments, whether IP identification numbers are being recycled; and

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code means for setting a size of a first fragment of a packet to a maximum transmission unit (MTU) if the IP identification numbers are recycling and decrementing the size of the first fragment of a packet each time the IP identification numbers recycle.

10. The computer program product of Claim 9 wherein the size of the first fragment of a packet is decremented until it is equal to a predefined minimum transmission unit.

11. The computer program product of Claim 10 wherein each time the size of the first fragment of a packet is to be decremented, it is decremented by one octet.

12. The computer program product of Claim 11 wherein after being equal to the minimum transmission unit, the size of the first fragment is set to MTU the next time the IP identification numbers recycle.

13. The computer program product of Claim 12 wherein when the first fragment of a packet is decremented, the fragment offset of all other fragments of the packet is modified.

14. The computer program product of Claim 13 wherein if the IP identification number of all fragments is the same and the fragment offset of a fragment is not consistent with each other, the packet is discarded.

15. The computer program product of Claim 14 wherein if the IP identification number of all fragments is the same

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and the fragment offset of a fragment is consistent with each other, the fragments are used to re-assemble the packet.

5 16. The computer program product of Claim 15 wherein the packet is discarded or re-assembled by a receiving host.

10 17. A system for reducing data corruption due to recycled Internet Protocol (IP) identification numbers comprising:

at least one storage system for storing code data; and

15 at least one processor for processing the code data to determine whether packets are to be divided into fragments, to determine, if packets are to be divided into fragments, whether IP identification numbers are being recycled, and to set a size of a first fragment  
20 of a packet to a maximum transmission unit (MTU) if the IP identification numbers are recycling and decrementing the size of the first fragment of a packet each time the IP identification numbers recycle.

25 18. The system of Claim 17 wherein the size of the first fragment of a packet is decremented until it is equal to a predefined minimum transmission unit.

30 19. The system of Claim 18 wherein each time the size of the first fragment of a packet is to be decremented, it is decremented by one octet.

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20. The system of Claim 19 wherein after being equal to the minimum transmission unit, the size of the first fragment is set to MTU the next time the IP identification numbers recycle.